

Meeting Diverse Classroom Needs through Practical Applications of Assistive Technology

Laura H. King, Ph. D.
East Carolina University
kinglau@ecu.edu

Nancy J. Aguinaga, Ph. D.
University of Southern Indiana
njaguinaga@usi.edu

Introductions & Overview

- Demonstrating an increase in student learning is the primary aim of all teachers
- Problem for teachers: How do you address academic goals for students with disabilities and deal with underlying physical and functional needs that must be addressed simultaneously in order for learning to occur. Self-contained classrooms in particular are known for having a broad range of both physical and cognitive needs present.
- Solution: Merging universal design principles for learning and content area information to be addressed through curriculum with the use of technology and assistive technology into practical resources

Session Rationale

This session will demonstrate how to integrate:

- three principles of UDL
- student learning styles
- needs of specific populations

Connection of this integration to the curriculum by merging practical learning activities and resources in teacher education programs to better support the needs of beginning teachers.

Support from the Research Literature

- Diversity of Learners
- Brain Research
- Principles of UDL

Universal Design for Learning

- Digital natives
- Teacher challenges
- High standards

Barriers to Application of UDL

- Materials and Resources readily available
- Money
- Time
- Consistency of use in classrooms

Solutions to Application of UDL

Supporting classroom organization and management with teaching materials that readily & easily provide access to content to all students ~ regardless of the diversity in the classroom.

Literacy Kits Assignment

The focus of the kit is to develop clear and focused materials and resources that align to a specific:

- Unit
- Content
- Theme

...while documenting evidence of alignment with competencies addressed in the state's Standard Course of Study.

Shows evidence of addressing the 5 components of Reading

- Phonological Awareness
- Phonics
- Vocabulary
- Fluency
- Comprehension

Shows evidence of a minimum of one activity or resource for:

- Visually Impaired
- Deaf/Hard of Hearing
- Developmental Delay or Cognitive Impairment
- Sensory Integration
- Gifted

Materials are:

- Creatively packaged in overall kit
- Professionally made; Durable

Strategies/Technology Grid

Literacy Kits for Preservice/Beginning Teachers

Each section should note materials available for that section that are accommodations for the following populations:

- learning disabilities
- visually impairments
- hearing impairments
- more significant cognitive impairments
- materials/resources for fine motor or sensory integration

Adapted Curriculum:

Outline for Idea/Organization Books

Section 1: Contains a brief overview of the kit and inventory list.

Section 2: May contain copies of communication boards that focus on personal (social) interaction based on themes of the book, ideas for increasing communication tying with the themes of the book, etc.

Section 3: May contain a brief summary of activities already included, ideas to be explored, lesson plans that align with book and focus on building language, etc.

Section 4: May contain activity plans aligned with book, listing of folder games for reinforcement of skills, etc.

Section 5: Plans, ideas, and resources for promoting sensory activities for students. Must be aligned with building language and literacy.

Section 6: May contain lessons, plans, materials, resources, for incorporating the themes in to special areas looking for reinforcement of language and literacy throughout.

Section 7: Listing of ebooks, software, websites, and low tech items that may be incorporated. Be clear about how and where they will be incorporated.

Section 8: Miscellaneous. Anything that doesn't fit the above categories. May include a list of activities/resources for gifted populations.

General Curriculum:

Outline for Idea/Organization Books

Section 1: Contains a brief overview of the kit and inventory list.

Section 2-5: The Five Components of Reading~ May contain copies of lesson plans, activity plans, descriptions of folder games, lists of resources or activities, that align with book and focus on literacy development specific to each Reading component.

Section 6: May contain lessons, plans, materials, resources, for incorporating the themes through communication activities. This will likely be more aligned to AAC or ELL learners.

Section 7: May contain lessons, plans, materials, resources, for incorporating the themes through special area or content area classes.

Section 8: Listing of ebooks, software, websites, and low tech items that may be incorporated. Be clear about how and where they will be incorporated. May include a list of

activities/resources for gifted populations.

Examples of Literacy Kits

Commonly available resources for teachers for UDL applications

- Word (or other word processing programs)
- BoardMaker*
- Use of everyday materials to enhance access for students
- Digital cameras
- Companies like Oriental Trading
- Typical supplies found in office supply stores.